

A MILESTONE IN THE DEVELOPMENT OF COMPUTERS!



NEW!

Based on papers delivered at a symposium, presented in April 1966, by the Department of Engineering and Computing Facility, UCLA and Engineering Extension, University of California Extension, L. A., in cooperation with informatics inc.

**FOR: PROGRAMMERS, ANALYSTS, AND
USERS INVOLVED IN THE INTERACTION
BETWEEN DATA PROCESSING
AND GRAPHICAL DISPLAYS —**

**with an introduction by
WALTER F. BAUER
President, informatics inc.**

The contents of this book represent a milestone in the development of computers; an important measure of success in releasing the computer from an aura of mysticism where a few specialists were knowledgeable, to a realm of great usefulness of the computer by professionals of a wide variety of disciplines, and eventually, the lay public, in our ever-increasing automated society.

While a general familiarity with data processing is presupposed, the emphasis is upon the unique aspects used in presenting graphical input and output in the computing milieu. Particular attention is directed toward the emerging "total systems" which involve the manipulation of digitized data generated from the graphical form and where the results are similarly recorded as a pictorial record. For the user whose problems and their solutions intimately involve graphic representation and understanding of the technology, the potential of graphic data processing is provided.

The subject matter here includes not only apparent factors such as quality of output, reliability of machines and operation techniques, but also comprehensive and complex programming systems which relate to those factors and implement the entire process. In fact, regarding the underlying programming, it appears that the greater portion of the total computer system software to be prepared for the machine of the future will be directly supporting computer graphics. Computer graphics, therefore, probably will be considered the most important sub-system of the total computing complex — from the physical, organizational and functional points of view. It will rank in importance and complexity with such items as the overall executive and the information storage and retrieval program.

This publication covers a wide variety of applications. The subjects range from the simple presentation of information on a CRT to the development of programming and techniques for the production of contour maps. The activities involved, likewise are broad in scope — from the computer-aided editing of natural languages to the design and specification of automobiles and their component parts. The economics involved here are also wide in scope — from the direct recording of data by relatively unsophisticated printing devices to the techniques in typography for newsprint and for motion picture animation.

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Also featured in this brochure; two other significant new publications:

"Information Retrieval Among Examining Patent Offices" and "Information Retrieval, A Critical View."

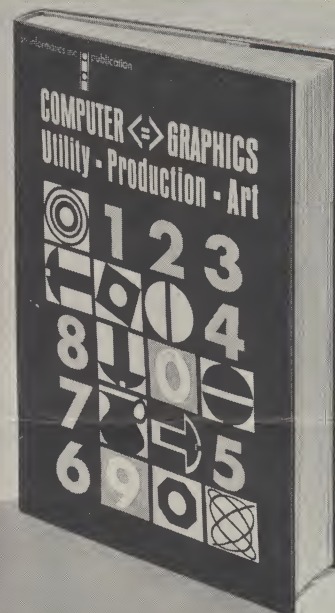
THE "WELCOMED REVOLUTION"

an informatics inc.  publication

COMPUTER $\Leftrightarrow$ GRAPHICS Utility - Production - Art

Graphic data processing or the synthesis of computers and the graphic arts can be called the "welcomed revolution". From the time of Babbage, the system designer, programmer, and problem solver, alike, have all recognized the desirability and ultimate necessity of providing a data processing system that starts with graphic input and returns the results in the most meaningful graphical form. New peripherals, new techniques, and more than anything else, new "third generation" computers lead us to believe that the revolution may be here. This book keeps the reader abreast of the changes.

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With the new computers, graphic data processing truly appears to be a reality. Character readers and film scanners permit the input of graphic forms into a digital computer. Once digitized, problem-oriented routines and display languages permit the processing of data against a graphic frame of reference. Subsequent output in its most meaningful form, be it a graph, a tabular display, or an animated three-dimension representation is the logical consequence. To facilitate the transition, it is necessary that the programmer and analyst appreciate the role of the new equipment, and that the potential user understand all aspects of the process so that he can fully exploit such a system.

The implications are far reaching. The cycle time for product design and specification and subsequent engineer-

ing changes has been greatly reduced; new vistas have opened in the field of publications: graphically recorded data for land formation and cloud cover have been processed and analyzed; new techniques have been made available for the rapid production of animated films and kinescopes to permit the simulation of many situations. Most importantly, graphic data processing becomes intimately associated with on-line systems, adding completely new dimensions to the man/machine interface.

The book discusses all aspects of graphic data processing. In particular, it covers with a considerable degree of thoroughness, the principles, disciplines and practices which are necessary to understand graphic data processing, both in equipment and in programming.

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Information Retrieval Among Examining Patent Offices

ICIREPAT

FIFTH ANNUAL MEETING

Edited by Harold Pfeffer
U.S. Patent Office

This book, one of the ICIREPAT series, contains the proceedings of the Fifth Annual Meeting of the Committee for International Cooperation in Information Retrieval Among Examining Patent Offices (ICIREPAT), held in London, England.

It examines the changes that the patent systems of the world today face in order to keep pace with modern technology — from the viewpoint that the patent system is a combination of the law, on one hand, and science and technology on the other. By means of progress reports, the activities of the past year by eight Patent Offices in different countries are evaluated. Systems that were tested and either accepted or rejected are presented for the benefit of all.

The discussions that follow the reports open new doors to greater mutual understanding and closer international cooperation between Patent Offices in the fields of classification and information retrieval. Seven technical sessions relate pertinent information in areas ranging from the early developmental stages of a mechanical retrieval system to more sophisticated study relating to patent office operations.

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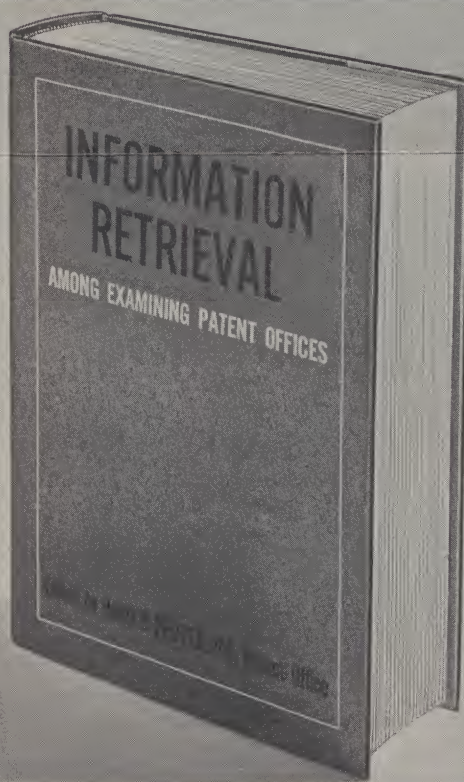
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INFORMATION RETRIEVAL

A CRITICAL VIEW

This timely and significant summary presents the
**PROCEEDINGS OF THE
 THIRD ANNUAL
 NATIONAL COLLOQUIUM ON
 INFORMATION RETRIEVAL**
 held in May, 1966

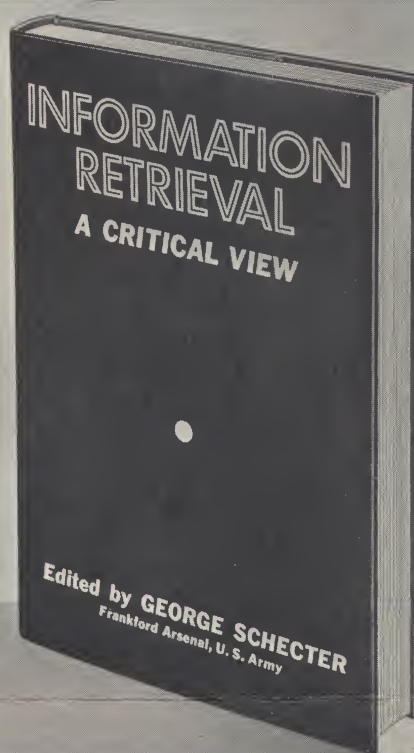
Edited by George Schechter
Frankford Arsenal, U. S. Army

The contents represent a broad yet detailed survey of recent advances in many phases of this ever-increasingly important subject. The symposium, co-sponsored by the Special Interest Group on Information Retrieval (Association for Computing Machinery), as well as groups representing Institute of Electrical and Electronics Engineers, American Documentation Institute, the Moore School of Electrical Engineering of the University of Pennsylvania and the U.S. Army indicates the scope of this symposium. The work represents "must" reading for all concerned with any ramification of information retrieval. A study of the Table of Contents will bear this out.

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"MUST" READING FOR
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